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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,068	02/28/2005	Yasuo Ohsawa	Q86524	6620
23373 7590 03/19/2009 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER				
MAKI, STEVEN D				
ART UNIT		PAPER NUMBER		
1791				
MAIL DATE		DELIVERY MODE		
03/19/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/526,068

**Applicant(s)**

OHSAWA ET AL.

**Examiner**

Steven D. Maki

**Art Unit**

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

1) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12-29-08 has been entered.

2) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3) Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "pneumatic tire which designates directions to an inner and outer side of a vehicle when the tire is mounted on the vehicle" (emphasis added). One of ordinary skill in the art is not reasonably appraised of the scope of protection afforded by this language. It is uncertain if the "which designates directions" language relates to intended use or adds additional structure. If additional structure is intended, then the scope and meaning of such additional structure is ambiguous.

In claim 1 line 3, there is no antecedent basis for "the tread". In claim 1, it is suggested to insert --having a tread and -- before "comprising" on line 2.

Claim 1 describes "when the tire is mounted on the vehicle" (line 2) and "the tire mounted on a vehicle". This inconsistent language raises ambiguity as to the scope of

claim 1. In claim 1, it is suggested to change "the tire mounted on a vehicle" to --the tire when the tire is mounted on the vehicle--.

In claim 29 line 7, there is no antecedent basis for "the tread". In claim 29, it is suggested to insert --has a tread and -- before "comprises" on line 5.

- 4) The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- 5) Claim 29 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 29, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is "said vehicle comprising at least one pneumatic tire" (emphasis added). The original disclosure does not describe a vehicle having only one tire and therefore cannot reasonably convey a vehicle having at least one tire. This is especially true since the disclosed tire has an asymmetric tread pattern.

- 6) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8) **Claims 1-2, 19 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Takasugi et al (US 5,358,021).**

Takasugi et al discloses a pneumatic tire with tread having an asymmetric tread pattern. As can be seen in figure 1, tire B comprises four circumferential grooves, three circumferential ribs 3, 4 and 5 and two rows of blocks 6, 7. Takasugi et al teaches that the ribs provide higher rigidity for that side for excellent maneuvering stability. The ribs 4 and 5 contain lateral grooves which are shown as being inclined at angle greater than 45 degrees with respect to the circumferential direction. Shoulder block row 7 comprises lateral grooves 2 and rib 3 comprises lateral grooves. Since a rib inherently has a larger contact area than a row of blocks, there is sufficient evidence to conclude that the volume of grooves in the rib 3 is less than the volume of lateral grooves in the block row 7. The claimed tire is anticipated by Takasugi et al's tire.

It is acknowledged that grooves in the rib 3 are on the outer side of the tire of Takasugi **instead of** the inner side of the tire whereas claim 1. However, the description of "inner and outer side" in claim 1 relates to intended use of the tire and fails to require tire structure different than that disclosed by Takasugi et al since the

claimed tire can be mounted such that the outer side becomes the inner side and visa versa.

Applicant fails to address the examiner's reasoning as to the volume of grooves in a rib 3 being less than the volume of lateral grooves in the block row 7. Instead, applicant relies on "which designates directions to an inner and outer side of a vehicle when the tire is mounted on the vehicle". However, the language of "which designates directions to an inner and outer side of a vehicle when the tire is mounted on the vehicle" relates to intended use of the tire instead of tire structure. The intended use of the claimed tire (whether the claimed tire is mounted such that the side having the smaller sum of groove volume is an inner side or outer side) fails establish any difference between Takasugi et al's tire and the claimed tire.

Applicant argues that "... the directional tire can only be mounted onto the vehicle on one way". This argument is not persuasive since (1) attorney arguments cannot take the place of evidence in the record and (2) applicant fails to present reasons as to why a directional tire cannot be mounted on a vehicle in two ways - one way having a first sidewall facing outward and the other way having a sidewall facing inward. Examiner emphasizes that there is a difference between (1) cannot be mounted and (2) should not be mounted. In other words, applicant fails to explain why a consumer cannot ignore a manufacturer's directions and mount the tire in a direction opposite of that the manufacturer's recommendation for mounting the tire.

9) **Claims 1-2, 15-24, 27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takasugi et al (US 5,358,021) and optionally Landers (5,176,766) and, with respect to claims 16-18, 20-21 and 27, official notice is taken.**

Takasugi et al, discussed above, is considered to anticipate claim 1. In any event: It would have been obvious to one of ordinary skill in the art to provide the shoulders of Takasugi et al's tire such that the volume of lateral grooves in the shoulder rib 3 is smaller than the volume of lateral grooves in the block row 7 since Takasugi et al teaches that the lateral grooves provide drainage but land 3 is formed into a rib so that the rigidity of that shoulder is higher for excellent maneuvering stability. Furthermore, it would have been obvious to incline the lateral grooves in the ribs 4, 5 at an angle of greater than 45 degrees with respect to the circumferential direction since Takasugi et al shows steeply inclining the lateral grooves with respect to the circumferential direction.

It is acknowledged that grooves in the rib 3 are on the outer side of the tire of Takasugi **instead of** the inner side of the tire whereas claim 1. However, the description of "inner and outer side" in claim 1 relates to intended use of the tire and fails to require tire structure different than that disclosed by Takasugi et al since the claimed tire can be mounted such that the outer side becomes the inner side and visa versa.

Applicant fails to address the examiner's reasoning as to the volume of grooves in a rib 3 being less than the volume of lateral grooves in the block row 7. Instead, applicant relies on "which designates directions to an inner and outer side of a vehicle

when the tire is mounted on the vehicle". However, the language of "which designates directions to an inner and outer side of a vehicle when the tire is mounted on the vehicle" relates to intended use of the tire instead of tire structure. The intended use of the claimed tire (whether the claimed tire is mounted such that the side having the smaller sum of groove volume is an inner side or outer side) fails establish any difference between Takasugi et al's tire and the claimed tire.

Applicant argues that "... the directional tire can only be mounted onto the vehicle on one way". This argument is not persuasive since (1) attorney arguments cannot take the place of evidence in the record and (2) applicant fails to present reasons as to why a directional tire cannot be mounted on a vehicle in two ways - one way having a first sidewall facing outward and the other way having a sidewall facing inward. Examiner emphasizes that there is a difference between (1) cannot be mounted and (2) should not be mounted. In other words, applicant fails to explain why a consumer cannot ignore a manufacturer's directions and mount the tire in a direction opposite of that the manufacturer's recommendation for mounting the tire.

As explained above, Takasugi et al teaches mounting the side with the smaller lateral groove volume so as to face the outside of the vehicle. However, the description of "shoulder land part row corresponding to an axially inner side" (emphasis added) relates to intended use and fails to require tire structure not disclosed by Takasugi et al since *a tire can be mounted so that either side becomes an inner side*. In any event: As to claim 1 and 29, it would have been obvious to one of ordinary skill in the art to mount Takasugi et al's directional tread pattern tire backwards since Landers et al teaches



mounting a directional tread pattern tread backwards when improved snow performance is desired. Landers et al's teaching that a tire having a directional tread pattern can be mounted for either forward or backwards constitutes evidence that applicant's argument on page 12 of the response filed 12-29-08 that the directional tire can be mounted onto the vehicle in only one way is incorrect.

As to claim 2, Takasugi et al's tread has four grooves and ribs 4, 5 having lateral grooves 2.

As to claim 15, note the circumferential grooves of the asymmetric tread disclosed by Takasugi et al and Takasugi et al's teachings as to rigidity.

As to claims 16-18, it would have been obvious to provide Takasugi et al's blocks with the claimed shape / height since "official notice" is taken as well known / conventional per se in the tread art to shape blocks (e.g chamfer) to reduce wear. In other words, "official notice" is relied upon to address the subject matter of claims 16-18.

As to claims 19 and 22, note Takasugi et al's tread pattern and discussion regarding rigidity. Applicant argues that Takasugi does not satisfy every feature of claim 22. Examiner disagrees since the description of the rigidity in the widthwise direction being "within a range of 50% from a large value between mutually adjacent land part rows" is sufficiently broad to read on the similar width land rows of Takasugi et al. The similar widths of the land rows result in similar rigidities for those land rows. As the width of a row increases, so does its rigidity in that direction. In other words, claim 22 reads and fails to define over land rows having the widths shown by Takasugi et al.

As to claims 20 and 21, it would have been obvious to one of ordinary skill in the art to provide Takasugi et al's lateral grooves such that the depth of the lateral grooves changes as claimed and/or the directions of the lateral grooves are alternately rendered in opposite directions since (1) with respect to claim 20, it is taken as well known / conventional per se in the tire art change the depth of lateral grooves to affect water drainage and/or steering stability and (2) with respect to claim 21, it is taken as well known / conventional per se in the tire art to use of alternating direction lateral grooves to improve traction. In other words, official notice is relied upon to address the subject matter of claim 20 and 21.

As to claims 23 and 24, the contact on one side of Takasugi et al's tread is different than that on the other side.

As to claim 27, Takasugi et al's tread has acute angle corners and the official notice establishes the desirability (reduced wear) of chamfering. Blocks having acute angle corners are not novel because Takasugi et al's tread comprises blocks having acute angle corners. See Figure 1. Also, applicant has not asserted novelty per se for chamfering acute angle corners of blocks.

**10) Claims 3, 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takasugi et al (US 5,358,021) and optionally Landers (5,176,766) as applied above and further in view of Japan 408 (JP 03-186408) and Takigawa et al (US 4,214,618).**

As to claims 3, 5 and 8, it would have been obvious to one of ordinary skill in the art to form a fine circumferential groove in the shoulder of Takasugi et al's tire since

Japan 408 and Takigawa et al suggest forming a fine circumferential groove in a shoulder of the tread of a tire to prevent wear. With respect to lateral grooves in the shoulder land portion being at no more than 15 degrees with respect to the widthwise direction (claim 3), the lateral grooves in the shoulder ribs of Takasugi et al's tread are oriented substantially perpendicular to the circumferential direction as shown in the figures. With respect to claim 5, see Figures 5 and 6 of Takigawa et al. With respect to claim 8, see Figure 1 of Japan 408.

**11) Claims 4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takasugi et al (US 5,358,021) and optionally Landers (5,176,766) and further in view of Japan 408 (JP 03-186408) and Takigawa et al (US 4,214,618) as applied above and further in view of Japan 511 (JP 2002-225511) and Japan 107 (JP 62-059107).**

As to claims 4, 6 and 7, it would have been obvious to one of ordinary skill in the art to form the claimed holes in the shoulder of Takasugi et al's tread since Japan 511 and Japan 107 suggest forming holes in the shoulders of a tire tread to reduce wear. With respect to claim 4, both Japan 511 and Japan 107 teach disposing holes at a location axially inward of the location of the narrow groove suggested by Japan 408 and Takigawa et al. With respect to claim 6, Japan 107 suggests using smaller holes near the circumferential groove. With respect to claim 7, both Japan 408 and Takigawa et al teach disposing holes in a ground contacting surface of the tire. The description regarding camber (camber at an angle of  $\sim 5$  degrees being an intended use feature)

fails to require holes closer to the circumferential groove than that suggested by Japan 511 and Japan 107.

**12) Claims 9-12 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takasugi et al (US 5,358,021) and optionally Landers (5,176,766) and further in view of Japan 408 (JP 03-186408) and Takigawa et al (US 4,214,618) as applied above and further in view of Europe 104 (EP 810104) and Emerson (US 5,421,387) and official notice.**

As to claims 9-12, it would have been obvious to one of ordinary skill in the art to form both end opening widthwise fine grooves inclined at an angle with respect to the circumferential direction in Takasugi et al's ribs since (1) Europe 014 teaches forming sipes in a tread to improve grip and (2) Emerson shows forming "sipes" in ribs of an asymmetrical tread pattern. "Official Notice" is taken that it is well known / conventional in the tread art to illustrate sipes as lines because they are narrow (have a width less than 2 mm). Hence, Europe 104 and Emerson suggests forming sipes in the ribs of Takigawa et al (including the biased center rib) to obtain the predicted result of improved grip. with respect to claim 10, Europe 104 teaches curving the sipe in the depth direction.

**13) Claims 13, 14 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takasugi et al (US 5,358,021) and optionally Landers (5,176,766) as applied above and further in view of German 159 (DE 3738159).**

As to claims 13, 14 and 28, it would have been obvious to form the claimed ellipsoidal recesses since German 159 suggest forming ellipsoidal sipes 9 in shoulder ribs and a center rib of a tread to provide uniform wear and obtain good grip.

As to claim 28, the subject matter therein would have been obvious since German 159 teaches orienting the ellipsoidal sipes in shoulders such that the major axes are alternately opposed in the circumferential direction. See figure 3. Applicant's argument that the recesses in figure 3 are not in a central region is not persuasive since (1) Figure 3 clearly illustrates ellipsoidal sipes 9 in each of the shoulder ribs and center rib and (2) Figure 3 clearly shows alternately inclined ellipsoidal recesses.

**14) Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takasugi et al (US 5,358,021) and optionally Landers (5,176,766) as applied above and further in view of Japan 915 (JP 2002-192915).**

The rim upon which Takasugi et al's tire is mounted inherently has such a disc. The location of that disc, as would be readily understood by one ordinary skill in the art, would have been located toward the vehicle outer side. However, the location of the smaller sum of lateral groove volume of Takasugi et al would correspond to the location of this disc of the wheel upon which all pneumatic tires are mounted. See figure 1 of Takasugi et al. Applicant appears to agree with this factual finding in light of the emphasis applicant places on "inner" versus "outer" when discussing the application of Takasugi et al against claim 1. The *indirect capture of the intended use of the tire* (inner side having smaller sum of groove volume) by the association of the tire and wheel in claim 25 is specifically addressed by the application of Landers which teaches

oppositely mounting the tire. As noted above, the rim upon which Takasugi et al's tire is mounted inherently has such a disc. In any event: As to claim 25, it would have been obvious to use the claimed rim and disc since Japan 915 shows using a rim and disc (Figure 1) in order to mount a tire. As explained above, the suggestion to mount Takasugi et al's tire backwards comes from Landers et al.

Remarks

- 15) Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.
- 16) No claim is allowed.
- 17) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven D. Maki/  
Primary Examiner, Art Unit 1791

Steven D. Maki  
March 15, 2009